

Claims

1. A microtiter plate comprising a plurality of containers, wherein the bottom of each container comprises a (semi-)permeable membrane filter capable of directly or indirectly binding an analyte, and wherein each container is separated from an adjacent container by a container dividing wall,  
5 wherein the containers are grouped in one or more clusters, each cluster comprising at least two containers, wherein said clusters are separated from adjacent clusters by a cluster dividing wall and wherein at least part of the container dividing wall is lower than the cluster dividing wall or wherein the container dividing wall contains at least one passageway connecting at least  
10 two adjacent containers within a cluster, said passageway being at a distance from the bottom of the container and at least partly below the top of the container.
2. Microtiter plate according to claim 1, wherein each cluster of  
15 containers comprises at least  $n^2$  containers, wherein  $n$  is an integer, preferably an integer from 2-10, more preferably 2-5.
3. Microtiter plate according to claim 1 or 2, wherein said membrane  
20 filter comprises PVDF.
4. Microtiter plate according to any one of claims 1 to 3, wherein at least one container in a cluster of containers comprises a capture ligand for specifically binding an analyte to the membrane filter of said container.
- 25 5. Microtiter plate according to any one of claims 1 to 4, wherein at least two containers in a cluster of containers comprise a different amount of capture ligand for specifically binding an analyte to said membrane filter.

6. Microtiter plate according to any one of claims 1 to 5, wherein at least two containers in a cluster of containers comprise a different capture ligand for specifically binding an analyte to said membrane filter.
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7. Microtiter plate according to any one of claims 4 to 6, wherein said analyte is an infectious disease agent or an antibody there against.
8. Microtiter plate according to any one of claims 1 to 7, wherein at least one cluster comprises capture ligands specific for the detection of the causative agent of scrapie, BSE, chronic wasting disease and/or Creutzfeldt-Jakob disease.
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8. Microtiter plate according to claim 7, wherein at least one cluster comprises capture ligands for the detection of prions PrP<sup>Sc</sup>, PrP<sup>BSE</sup>, PrP<sup>CWD</sup> and/or PrP<sup>CJD</sup>.
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9. A method for the detection of one or more analytes in a liquid sample comprising:
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- a) providing a microtiter plate according to any one of claims 1 to 8;
- b) applying said liquid sample to at least one cluster of containers, filtering said sample through said membrane filter, thereby binding said one or more analytes to said membrane filter or capture ligand, and optionally performing washing steps;
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- c) detecting said bound one or more analytes in said containers by performing a binding assay on said membrane filter, said binding assay preferably being a chemiluminescent immunoassay.
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10. Method according to claim 9, wherein said one or more analytes comprise an infectious disease agent or an antibody there against.

11. Method according to claim 10, wherein the infectious disease agent is a prion, preferably a BSE-causing prion.

5 12. Use of a microtiter plate as defined in any one of claims 1 to 8, for detection of analytes in a liquid sample.

13. Use according to claim 2, wherein said detection comprises the simultaneous detection of multiple analytes in said sample.